Course Syllabus

Ling 320 Origin and Evolution of Human Language
Prof. Suzanne Kemmer

Meetings and contact information for Spring 2016

Class meetings: 10:00-10:50, Herring Hall 125
Instructor contact: Office, Herring Hall 209; Tel. (348)-6225, email kemmer at rice.edu **Office hours:** MWF 11:00am-11:50am and by appointment

Course description

As far as we can tell, only one species has a communicative system of the complexity of human language, and that is humans. By comparing full-blown human language with other systems, we can learn something about how human language arose in prehistory. Recent advances in primate cognition and social behavior, infant cognition and social behavior, archeology, genetics, and other fields allow us to adduce various sorts of evidence, of various degrees of directness, to make hypotheses about the origin and development of human language. In doing so, we can also learn more about human language itself and the nature of the human species.

Some questions we will deal with are:

- What properties does human language have that are similar to those found in communicative systems found in other species?
- What properties does it have that are distinct from other communicative systems?
- How does language relate to properties of the human mind and brain?
- How does the development of the human brain (prenatal, neonatal, and beyond) relate to the evolution of language? (The Ontogeny Question.) How do humans compare with other primates in regard to brain development in the individuals of the species?
- What is the relation between evolution of the human brain, and all its neural and cognitive capacities, and the evolution of language?
- How do the properties of language relate to the properties of the vocal apparatus and accompanying perceptual apparatus?
- Given the cognitive, structural, articulatory/acoustic, and developmental aspects of human language, what can we say about how human language acquired these properties? (The 'Evolution Question')
- What kinds of evidence can we bring to bear on the Evolution Question?
- How long ago did language evolve? In what steps or stages?
- What was early primate life like? What factors might have driven the development of features that distinguish humans from other primates, including those that appear to be underpinnings of later linguistic development?

- What kinds of early hominid species existed, and what were these early hominids like? If they had a communicative system, what properties of modern human language did it have or lack?
- Did modern human language evolve from communicative systems of early hominids? Which ones? Are there properties of human language as we know it that are NOT evolutionary developments of earlier hominid communicative systems, but which arose only after our species (homo sapiens sapiens) became distinct?

If time, we will also deal with the geographic spread of Homo sapiens sapiens and the accompanying spread and divergence of human languages throughout the world in paleolithic and post-paleolithic times. This section will include the recent hypotheses based on mitochondrial DNA and other genetic information derived from modern human populations. If no time for this part of the course is available (since this year some guest lectures have been added), suggestions for readings on these topics will be given.

Objectives

- Acquire an understanding of some of the major issues in the study of the evolution of human language
- Be able to describe some of the principal theories of language origin and development, such as the gestural theory, the genetic theory (relating to innateness of language), and the theories of sudden, gradual, and saltational evolution of language
- Obtain an accurate overview of the basic timeline of hominid evolution and where the points of disagreement are among scientists
- Be able to discuss the principal sources of evidence for hominid evolution and the evolution of language, including the fossil record, comparative primatology, developmental cognition, study of the brain, etc.
- Understand the relation between human communication and animal communication, specifically points of similarity and points of difference
- Acquire basic concepts about social cognition and how it relates to language and language evolution
- Understand the human speech mechanism, including the structure and functioning of the vocal tract and the basics of acoustics of speech
- Understand the basic nature of human cognitive capacities relevant to language and how they might have come into being in the course of evolutionary development
- Understand some basic developmental properties of the infant brain and the developmental path that leads to language in the child
- Practice putting together and giving powerpoint presentations on the topics of the class, including group presentations
- Gain mastery in writing about the topics of the class

Requirements

2 presentations – 1 group presentation, 1 individual - 30% (15 each)
2 presentation write-ups – 1 group, 1 individual - 20% (10 each)
1 research review – 30%

Participation (presence and contribution to class) – 7%
Contribution of relevant links on 2 separate areas - 3%
Quizzes – 10%

Sequence of Topics. Readings and other assigned materials made available on Canvas

1. Introduction and overview. Babel and other theories of the origin of language. The Evolutionary hypothesis. Monogenesis and Polygenesis.

2. Animal Communication. Reading: Hockett. Student presentations on animal communication in various species.

3. Social Cognition. Development of shared attention in humans. Ontogeny. Comparison with great ape social cognition. Reading: Tomasello.

4. Evolution of the Vocal Tract. Reading: Lieberman and McCarthy.

5. Big picture and large question: What came first, the Big Brain (modern human brain) or human language? The co-evolution hypothesis and arguments against it. Relation of development of vocal tract to development of the brain. Materials: Lamb Powerpoint (and article).

6. More on human cognitive capacities and their evolution. Tools and causality in humans and other primates. Animal behavior: tool using, understanding causation. Reading: Tomasello and Call (1997); Web pages by Kemmer.

7. Hominid evolution: What do we know about pre-human species? Student presentations on Australopithecines, Homo Erectus, Homo Habilis, Neanderthals, Very early humans, pre-homo sapiens sapiens. Reading: Ian Davidson overview on hominid species.

In addition to the core readings specified above, various web materials on Canvas will be assigned.

References to Readings and other Materials

On the web at http://www.ruf.rice.edu/~kemmer/Evol/refs.html

Grading

Grading of the work will be based primarily on quality of the content of the work (quality of your ideas, your generalizations based on evidence gathered, your understanding of how other researchers' ideas fit together, clear referencing of claims and assumptions used in building your argument, and organizational coherence that can allows the argument to be understood and followed). As a secondary criterion, I also take account of the professionalism of the written work and Powerpoints. Anything that detracts from professionalism--typos, misspellings, poor organization, etc. will affect the grade as well.

Content and form are not always precisely distinguishable when assessing quality of a project. With a Powerpiont, the structure gives you an easy way to organize your thoughts, but it is still possible to present a project in Powerpoint form that does not show a coherent progression of ideas, that therefore cannot be used easily by others to gain new knowledge. Try always to consider your work from another person's point of view - is your work teaching them something?

In general, in assessment of a project the following considerations are of great importance: How easy is it for others seeing the Powerpoint to absorb an understanding of the project? Have you made a convincing case for whatever claims or generalizations you are trying to establish in your project? Providing and referencing evidence to support your points is crucial. If you are assessing other researchers' work, are your assessments based on evidence from other work that you can bring to bear on what the researchers are claiming?

I expect students' Powerpoints and written work to be of sufficient quality that they can be posted/archived on the course website as additional resources for students and scholars searching for information on the particular topics of the course.

Overall Course Grade

The overall course grade will be based on:

1. quality of written work as described above
2. quality of student's part of group presentations
3. completion of quizzes and short reading responses, short summary of recent research in an area as assigned
4. presence and engagement - quality of other contributions to the course such as contributing to class discussions (largely dependent on reading the readings in time for the class discussion, and making an effort to say something about them) and to the course website

Class Policies

If you are unable to attend class on a given day, contact me in advance.

For the sake of class atmosphere, please do not use your phones in the classroom, or use your computer for social media or web surfing during the class.

Disabilities

Any student with a disability requiring accommodations in this class is encouraged to contact me after class or in office hours. Contact also the Disabled Student Services office in the Ley Student Center to find out how they can be of further assistance.